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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,501	07/29/2003	Horace P. Halling	03-150	6768

7590 07/22/2004

ROBERT H. BACHMAN  
59 Richard Sweet Drive  
Woodbridge, CT 06525

EXAMINER
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PATEL, VISHAL A

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 07/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/629,501

Applicant(s)

HALLING, HORACE P.

Examiner

Vishal Patel

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 9/22/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 3 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3, lines 1-2, "the C-shape portion includes an outer sealing line", Is this the same "an outer sealing line" as mentioned in claim 1, line 3?

### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-5 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Halling (US. 4,457,523).

Regarding claim 1: Halling discloses a resilient metallic sealing ring (42') having a C-shape portion (C-shape portion near 44') which connects a longitudinally extending portion (longitudinally portion having 54, 55, 46' and 43'). The C-shape portion includes an outer sealing line (line of outer surface of C-shape that contacts 16, as seen in figure 8) and an inward curl (inward curl at the end of 44') at the end (end of C-shape portion) thereof opposed to the longitudinally extending portion (the inward curl is opposed to the longitudinally extending portion).

The longitudinally extending portion includes an inwardly tapering portion (54 or 55 or 43' are all tapered inwardly), which terminates in an outwardly curved portion (curved portion near 46') at the end thereof opposed to the C-shape portion (the outwardly curved portion is opposed to the C-shape portion).

Regarding claim 2: The C-shape portion is an arcuate portion (portion between the end of 44' and 54), which terminates in an inwardly curled portion forming a lip (lip at distal end of 44') at the first end of the arcuate portion.

Regarding claim 3: The C-shape portion includes an outer sealing line (line of outer surface of C-shape that contacts 16) sealing line contacting and the longitudinally extending portion includes an inner sealing line (line of longitudinally extending portion contacting 16 and 20).

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Regarding claim 4: The arcuate portion connects to a frustro-conical portion (55) which terminates in an outwardly curved portion (outwardly curved portion at the end of 46') at a second end (end of 46') of the seal opposed to the first end.

Regarding claim 5: The seal including a longitudinally extending body portion (54 or 43').

Regarding claim 7: The seal installed in interference relationship with a body and axial retaining wall, with a probe inserted in contacting relationship therewith (retaining wall 34, probe having surface 18 and body 16).

Regarding claim 8: The longitudinally extending portion extends above the C-shape portion (this is the case since 54 and 55 extend beyond the C-shape section).

Regarding claim 9: The sealing contact areas are coated with at least one of soft, lubricious material and anti-galling materials (column 4, lines 29-41).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Halling in view of Spence et al (US 2003/0107188 A1).

Halling discloses the invention substantially as claimed above but fails to disclose that the thickness of the longitudinally extending portion decreases toward the end thereof. Spence discloses a metallic seal having two ends, the ends having curves, the thickness of the seal is

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varied (paragraph 033). It would have been obvious to one having ordinary skill in the art at the time the invention was made to configure the end of the longitudinally extending portion to have decreased thickness as taught by Spence to provide a specific load on the seal or stiffness for the seal (paragraph 033, lines 1-12).

***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Layer and Halling.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is (703) 308-8495. The examiner can normally be reached on Monday through Friday from 7:30 PM to 4:00 PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann, can be reached on (703) 306-4115.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-2168. Technology Center 3600 Customer Service is available at 703-308-1113. General Customer Service numbers are at 800-786-9199 or 703-308-9000. Fax Customer Service is available at 703-872-9325.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:** 703-872-9326, for formal communications for entry before Final action: or,  
703-872-9327, for formal communications for entry after Final action.

Hand-delivered responses should be brought to Crystal Park Five, 2451 Crystal Drive, Arlington, Virginia, Seventh Floor (Receptionist suite adjacent to the elevator lobby).

VP  
July 20, 2004



Vishal Patel  
Patent Examiner  
Tech. Center 3600